

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) The A floor panel ~~in the form of comprising~~ a rectangular plate which, at least at two opposite sides, is provided with coupling parts in the form of a tongue at the one side and a groove at the opposite side,

wherein these ~~the coupling parts comprising~~ are provided with integrated mechanical locking means in the form of a protrusion shaped on the tongue and a lip bordering the groove which is formed by the extraction of the material along the a longer arm of the groove,

wherein the a bearing surface of the lip is being inclined to the center and downwards,

~~characterized in that~~ the bearing surface (9) of the lip (8) at the longer arm of the groove (5) is being concave on ~~the an~~ arc with the a first radius (r_1), ~~the a~~ point of engagement of which is situated at ~~the an~~ upper border of the panel (1),

whereas the protrusion (7) of the groove (6) has having, in cross-section, the form of a circular section with ~~the a~~ third radius (r_3) which is shorter than the first radius, and

wherein the a lower part of the lip (8) and at the a lower part of the panel (1) from the side of the circular protrusion (7) have having the second bearing surfaces (9') inclined in relation to the a vertical plane into one direction, at ~~the a~~ first acute angle (α).
2. (Currently amended) The floor panel according to claim 1, ~~characterized in that wherein~~ the ratio of the third radius (r_3) to the first radius (r_1) is substantially equal to ~~about~~ 1:3.

3. (Currently amended) The floor panel according to claim 1, ~~characterized in that~~ wherein the first acute angle (α) is substantially equal to 30° approximately.
4. (Currently amended) The floor panel according to claim 1, ~~characterized in that~~ wherein the an internal surface (10) of the a recess along the longer arm of the groove, situated close to the lip (8), is concave on the an arc with the a second radius (r_2), which is longer than the first radius (r_1).
5. (Currently amended) The floor panel according to claim 4, ~~characterized in that~~ wherein the a ratio of the first radius (r_1) to the second radius (r_2) is substantially equal to 1:1.5 approximately.
6. (Currently amended) The floor panel according to claim 1, ~~characterized in that it has~~ comprising at least one longitudinal groove (15) which is situated from the bottom of the panel.
7. (Currently amended) The floor panel according to claim 1, ~~characterized in that~~ wherein a the bearing surface (9) of the lip (8), near the upper edge of the lip, turns into a flat surface, which is inclined in relation to the vertical plane at the a second acute angle (β), forming a nose (16).
8. (Currently amended) The floor panel according to claim 7, ~~characterized in that~~ wherein the second acute angle (β) is substantially equal to 15° approximately.
9. (Currently amended) The floor panel according to claim 7, ~~characterized in that~~ wherein a the second internal surface (17) of the a recess in the a lower arm of the groove (5) is flat and inclined in relation to the a horizontal plane at the a third acute angle (γ),
wherein the second internal plane surface (17), near the groove (5), turns into an offset (18) whose surface is flat, inclined in relation to the a vertical plane at the a fourth acute angle (δ).

10. (Currently amended) The floor panel according to claim 9, ~~characterized in that~~ wherein the third acute angle (γ) is substantially equal to 20° ~~approximately~~ and the fourth acute angle (δ) is substantially equal to 38° ~~approximately~~.
11. (Currently amended) The floor panel according to claim 1, ~~characterized in that on~~ wherein the bearing surface (9) ~~it is provided with~~ comprises a longitudinal recess shaped like a trough (19), in cross-section, the surface of which is concave on the an arc of the third radius (r_3) which is equal to the a radius of the circular protrusion (7).
12. (Currently amended) The floor panel according to claim 11, ~~characterized in that~~ wherein the second internal surface (17) is flat and inclined in relation to the horizontal plane at the third acute angle (γ),
and that this wherein the second internal surface, near the groove (5), turns into an offset (18) of flat surface inclined in relation to the vertical plane at the fourth acute angle (δ).
13. (Currently amended) The floor panel according to claim 12, ~~characterized in that~~ wherein the third acute angle (γ) is substantially equal to 20° ~~approximately~~ ~~whereas~~ and the fourth acute angle (δ) is substantially equal to 38° ~~approximately~~.
14. (Currently amended) The floor panel according to claim 1, ~~characterized in that it is~~ wherein said floor panel is composed made of wood or wood derivative layerwise glued material.
15. (Currently amended) The floor panel according to claim 1, ~~characterized in that on~~ wherein the short sides at the one edge ~~it is provided with~~ comprise a groove in the a near-rectangular form, in cross-section,
wherein the lower arm of ~~which is provided with~~ the groove comprises a triangular recess (14) ~~whereas at the opposite side it is provided with the~~

comprises a second tongue (11) in the near-rectangular form, which is ~~provided with the~~ comprises a second protrusion (12) shaped like a triangle in its lower part.

16. (Currently amended) The floor panel according to claim 9, ~~characterized in that on~~ wherein the bearing surface (9) ~~it is provided with~~ comprises a longitudinal recess shaped like a trough (19), in cross-section, the surface of which is concave on the arc of the third radius (r_3) which is equal to the radius of the circular protrusion (7).
17. (Currently amended) The floor panel according to claim 16, ~~characterized in that~~ wherein the second internal surface (17) is flat and inclined in relation to the horizontal plane at the third acute angle (γ),
and that this ~~wherein the second internal~~ surface, near the groove (5), turns into an offset (18) of flat surface inclined in relation to the vertical plane at the fourth acute angle (δ).
18. (Currently amended) The floor panel according to claim 17, ~~characterized in that~~ wherein the third acute angle (γ) is substantially equal to 20° ~~approximately whereas and~~ the fourth acute angle (δ) is substantially equal to 38° ~~approximately~~.
19. (Currently amended) The floor panel according to claim 7, ~~characterized in that on~~ wherein the short sides at the one edge ~~it is provided with~~ comprise a groove in the near-rectangular form, in cross-section,
wherein the lower arm of ~~which is provided with~~ the groove comprises a triangular recess (14) whereas at the opposite side it ~~is provided with the~~ comprises a second tongue (11) in near-rectangular form, which is ~~provided with the~~ comprises a second protrusion (12) shaped like a triangle in its lower part.

20. (Currently amended) The floor panel according to claim 9, ~~characterized in that on~~
wherein the short sides at the one edge it is provided with comprise a groove in the near-
rectangular form, in cross-section,
wherein the lower arm of ~~which is provided with~~ the groove comprises a
triangular recess (14) whereas at the opposite side it is provided with the
comprises a second tongue (11) in the near-rectangular form, which is provided
with the comprises a second protrusion (12) shaped like a triangle in its lower
part.
21. (Currently amended) The floor panel according to claim 11, ~~characterized in that on~~
wherein the short sides at the one edge it is provided with comprise a groove in the near-
rectangular form, in cross-section,
wherein the lower arm of ~~which is provided with~~ the groove comprises a
triangular recess (14) whereas at the opposite side it is provided with the
comprises a second tongue (11) in near-rectangular form, which is provided with
the comprises a second protrusion (12) shaped like a triangle in its lower part.
22. (Currently amended) The floor panel according to claim 16, ~~characterized in that on~~
wherein the short sides at the one edge it is provided with comprise a groove in the near-
rectangular form, in cross-section,
wherein the lower arm of ~~which is provided with~~ the groove comprises a
triangular recess (14) whereas at the opposite side it is provided with the
comprises a second tongue (11) in near-rectangular form, which is provided with
the comprises a second protrusion (12) shaped like a triangle in its lower part.